

**WHAT IS CLAIMED IS:**

1. A power conditioning system for conditioning a power transmission, said system comprising:
  - a voltage surge protector for eliminating voltage spikes over a predetermined threshold in said power transmission, thereby producing a surge protected power transmission;
  - a filter that receives said surge protected power transmission and reduces electromagnetic interference and radio frequency interference in said surge protected power transmission, thereby producing a filtered power transmission;
  - at least one inrush current suppressor that receives said filtered power transmission and limits the current associated with said filtered power transmission, thereby producing a conditioned power transmission.
2. The system according to Claim 1, wherein each said inrush current suppressor has at least one output port, and wherein each said inrush current suppressor

has an activated condition, where said at least one output port receives said conditioned power transmission and a deactivated condition where said at least one output port does not receive said conditioned power transmission.

3. The system according to Claim 2, wherein each said inrush current suppressor changes between said deactivated condition and said activated condition upon receipt of an incoming control signal and produces an outgoing control signal a predetermined time after said incoming control signal is received.
4. The system according to Claim 3, further including multiple inrush current suppressors, wherein each of said inrush current suppressors is in a cascading arrangement wherein said outgoing control signal for one inrush current suppressor is used as said incoming control signal for another of said inrush current suppressors.
5. The system according to 3, wherein said predetermined time is between 0.1 seconds and 1.0

second.

6. The system according to Claim 1, wherein said voltage surge protector, said filter and said at least one inrush current suppressor are contained in a single self-contained unit.
7. The system according to Claim 4, wherein said multiple inrush current suppressors include a first inrush surge protector and at least one subsequent surge protector.
8. The system according to Claim 7, further including a remote activation device coupled to said first inrush surge protector, wherein said remote activation device is used to selectively change said first surge protector device between said activated condition and said deactivated condition.
9. The system according to Claim 1, wherein each said inrush current suppressor contains a main resistor through which said filtered power transmission is passed when each said inrush current suppressor is in

said activated condition.

10. The system according to Claim 1 wherein each said inrush current suppressor contains circuitry that bypasses said filtered transmission around said main resistor after each said inrush current suppressor has been activated for a predetermined period of time.
11. The system according to Claim 1, wherein said filter includes a mutual inductor having two outgoing leads and a ferrite bead is disposed in series with each of said outgoing leads so that said protected power transmission passes through said ferrite beads after passing through said mutual inductor.
12. An inrush current suppressor, comprising:
  - an output port;
  - an input port;
  - a first circuit path extending between said input port and said output port;
  - a second circuit path extending between said input port and said output port;
  - at least one current limiting resistor

disposed in said first circuit path that limits electricity flowing through said first circuit path to a predetermined amperage;

a first relay disposed in said first circuit path for selectively opening and closing said first circuit path;

a second relay disposed in said second circuit path for selectively opening and closing said second circuit path;

circuitry coupled to said first relay and said second relay that initially closes said first circuit path and opens said second circuit path for a predetermined period of time, and then opens said first circuit path and closes said second circuit path.

13. The assembly according to Claim 12, wherein said predetermined period of time is between  $\frac{1}{2}$  second and 5 seconds.

14. The assembly according to Claim 12, wherein said circuitry initially closes said first circuit path upon receiving a control signal.

15. The assembly according to Claim 14, wherein said circuitry creates said control signal after said second circuit path closes.

16. A method of cascading power conditioning circuits, comprising the steps of:

providing a plurality of power conditioning circuits that remove at least one adverse characteristic from a power transmission, wherein each of said power conditioning circuits is activated by a first control signal and produces a subsequent control signal after a predetermined period of delay;

interconnecting said plurality of power conditioning circuits wherein said subsequent control signal from one power conditioning circuit is used as said first control signal for a subsequent power conditioning circuit.

17. The method according to Claim 16, wherein each of said power conditioning circuits include inrush current suppressors.

18. The method according to Claim 17, wherein each of

said power conditioning circuits further includes filters for filtering electromagnetic interference and radio frequency interference.

19. The method according to Claim 17, wherein each of said power conditioning circuits further includes a voltage surge protector.

20. A system for conditioning incoming electrical power, said system comprising:

at least one inrush current suppressor circuit for eliminating inrush current spikes from the incoming electrical power;

at least one second power conditioning circuit, selected from a group consisting of voltage surge protector circuits and EMI/RFI filter circuits.

21. The system according to Claim 20, having multiple inrush current suppressors, wherein each of said inrush current suppressors is in a cascading arrangement so that one of said multiple inrush current suppressors activates a subsequent one of said multiple inrush current suppressors after a predetermined time delay.

22. A system for conditioning incoming electrical power, said system comprising:

a EMI/RFI filter circuit for eliminating electromagnetic interference and radio frequency interference from the incoming electrical power;

at least one second power conditioning circuit, selected from a group consisting of voltage surge protector circuits and inrush current suppressor circuits.

23. The system according to Claim 22, wherein said filter includes a mutual inductor having two outgoing leads and a ferrite bead is disposed in series with each of said outgoing leads so that the electrical power passes through said ferrite beads after passing through said mutual inductor

24. The system according to Claim 22, having multiple inrush current suppressors, wherein each of said inrush current suppressors is in a cascading arrangement so that one of said multiple inrush current suppressors activates a subsequent one of said multiple inrush current suppressors after a predetermined time delay